Appl. No. 10/717,806 Amdt. dated March 29, 2005 Reply to office action of Jan. 3, 2005

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A turbine engine component having a trailing edge portion, said component comprising:

means for cooling the trailing edge portion; and

said cooling means comprising a cooling fluid flowing in a passageway in a first direction and a plurality of rows of pedestals which receives said cooling fluid from said passageway and which varies in density along a span of the component with the number of said rows of pedestals decreasing in the flow direction of said cooling fluid.

- 2. (original) A turbine engine component according to claim 1, wherein the number of rows of pedestals increases as one moves along the span of the component from an inner diameter region to an outer diameter region.
- 3. (original) A turbine engine component according to claim 1, wherein the number of rows of pedestals in an outer diameter region of said component is greater than the number of rows of pedestals in an inner diameter region of said component.
- 4. (original) A turbine engine component according to claim 3, wherein the number of pedestal rows in the outer diameter region is at least twice as many as the number of pedestal rows in the inner diameter region.

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5. (original) A turbine engine component according to claim 3, wherein there are seven pedestal rows in the outer diameter region and three pedestal rows in the inner diameter region.

6. (currently amended) A turbine engine component according to claim 1, wherein having a trailing edge portion, said component comprising:

means for cooling the trailing edge portion;

said cooling means comprising a plurality of rows of
pedestals which varies in density along a span of the component;
and

said cooling means further comprises comprising a cooling passage having an inlet at the outer diameter of the component, which cooling passage provides a cooling fluid to said pedestal rows, and a plurality of slots along a trailing edge of said component through which said cooling fluid is exhausted, which slots are in fluid communication with a region containing said pedestal rows.

7. (original) A turbine engine component according to claim 6, wherein said variable density pedestal rows optimizes trailing edge slot coolant Mach number and velocity with coolant air temperature rise and local thermal convective efficiency and performance.

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8. (original) A turbine engine component according to claim 1, wherein said component comprises a vane and said cooling means is located in an airfoil portion of said vane.

- 9. (original) A turbine engine component according to claim 1, wherein said component comprises a blade and said cooling means is located in an airfoil portion of said blade.
- 10. (currently amended) A turbine engine component comprising:

an airfoil portion having an outer edge portion and an inner edge portion;

a cooling passageway located in said airfoil portion for providing a cooling fluid to a trailing edge portion of said airfoil portion;

a plurality of cooling slots in said trailing edge portion for exhausting said cooling fluid; and

means for uniformly optimizing trailing edge slot coolant Mach number and velocity with coolant air temperature rise and local thermal convective efficiency and performance so that a substantially uniformly distributed coolant temperature is achieved as said cooling fluid is exhausted from said cooling slots from said inner edge portion to said outer edge portion.

11. (original) A turbine engine component according to claim 10, wherein said uniformly optimizing means comprises a plurality of rows of pedestals having a spanwise variable density.

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- 12. (original) A turbine engine component according to claim 11, wherein the number of rows of said pedestals adjacent said inner edge is less than the number of rows of said pedestals adjacent said outer edge.
- 13. (new) A turbine engine component according to claim 10, wherein a flow rate of said cooling fluid is least at said inner edge portion and greatest at said outer edge portion.
- 14. (new) A turbine engine component according to claim 13, wherein said cooling passageway has an inlet at said outer edge portion.
- 15. (new) A turbine engine component according to claim 1, wherein said passageway has an inlet at an outer edge portion of said component.